

An unacademic approach to an important problem

Institute of Science, Education and Culture has organized a National Seminar on "Water Crisis and its Management". On 27th Sept 2014 in BITM Kolkata (in collaboration with BITM).

Water is the most important component of five basic elements of world. Water is almost synonymous with life. Mother Earth's constitution is, one-fourth is surface soil and three-fourth is water. Yet like bewitched crews rhyme of "Ancient Mariner" people may have to lament crying "Water water everywhere all the board did shrink / water water everywhere, not a drop to drink".

This seminar attempts to point out possibility of such ill-fated situation in remote future. Evidence of such malady is already being noted by environment experts.

Nature of the crisis

- **Water scarcity:** At present it is noted 2.8 billion world population suffer from water scarcity at least for one month per year!
- Water scarcity means lack of sufficient available water resources to meet the demand of water usage within a region.
- Water scarcity involves water stress, water shortage and water crisis.
- Water stress is the difficulty of obtaining sources of fresh water for use and may result in depletion and deterioration of water resources.
- Water shortage may be caused by climate change; increased pollution and increased human demand or overuse of water.
- Water crisis is a situation where the available unpolluted water is less than the regions demand.
- Water scarcity can be a result of physical water scarcity and economic water scarcity due to poor management of available water.

The United Nations estimates that of one quadrillion acre feet of water on Earth just 162.1 billion acre feet represent fresh water available for human consumption. It is believed that more than one in six people in the world are water stressed. Those that are water stressed, this means about 1.1 billion such people in the world are living in developing countries. Water stress is intensifying in china, India and Sub Saharan Africa. In China, more than 538 million people are living in water stressed situation. These facts highlight the gravity of the crisis, which demands serious action.

Sources of usable water

Usable water comes from rain, from snow, from hilltops and snow clad Polar Regions and from the subsoil water.

Scarcity of this usable water is due to

- **Change in climate:** This change has caused receding glaciers reducing stream and river flows, shrinking lakes and ponds. These appear apparently beyond human control.
- **Man-made disasters:** Deforestation, unbridled urbanization, eco-destructive industries, un-recharged over pumped aquifers, pollution of natural water makes them salted inimitable for human use. Eco-abusive industry and agricultural over/misuse of water are example of man-made crisis.
- **Mismanaged surface water:** Big ponds (dighis and sayars) get silted. They are seldom redressed. The rain water in rainy seasons overflows through canals, rivers to ocean and fails to recharge these water reservoirs.
- **Population explosion:** Journals of climate opine that the water shortage results from population size more than rainfall.

Consequences of water crisis

- Inadequate access to safe drinking water for about 884 million people.
- Inadequate access to water for sanitation and waste disposal for 2.5 billion people.
- Ground water overdrawn causing low agricultural yield.
- Overuse and pollution harming biodiversity
- Regional conflicts for water resources resulting in warfare.
- Water-borne diseases and absence of sanitary domestic water are the leading cause of death specially for under-five children.

The aforesaid sketchy information is enough to draw attention of social activists and initiate immediate measures to prevent further worsening of the crisis.

Conclusive submission

ISEC should be credited for this very important intellectual exercise. This submission urges upon the participants to organize an awareness campaign involving political parties, mass organizations and social workers of every categories irrespective of their colour and creed. India, West Bengal in particular has an infrastructure in the grassroots level in the form of Panchayats and Nagar Palikas. The members of these local and self-government should be apprised of the nature and magnitude of the problem and inspire them to take active measures for its prevention.

Gouri Pada Dutta

Chairman of a session of the seminar